

axially from the left end wall to the right end wall,  
extending outward away from the rotor axis and in the  
direction of rotation, and wherein said first wall plane  
intersects the rotor axis;

a plurality of first base support surfaces, that are  
each in a base support plane that is perpendicular to the  
first wall plane and wherein all the base support planes that  
are perpendicular to said first groove wall intersect each  
other;

a plurality of first rectangular flat cutter blades  
each of which has a left blade end, a right blade end, a  
cutting edge and a base that is parallel to the cutting edge  
and wherein the base of each of the plurality of first  
rectangular cutter blades is seated on one of the plurality of  
first base support surfaces;

a second groove wall in a second wall plane  
extending axially from the left end wall to the right end  
wall, extending outward away from the rotor axis and in the  
direction of rotation, and wherein said second wall plane  
intersects the rotor axis;

a plurality of second base support surfaces, that  
are each in a second base support plane that is perpendicular  
to the second wall plane and wherein all the second base  
support planes that are perpendicular to said second wall  
plane intersect each other;

a plurality of second rectangular flat cutter blades  
each of which has a left blade end, a right blade end, a  
cutting edge and a base that is parallel to the cutting edge

09/776,025-050701

ail cont

SERIAL NO: 09/776,025

3

Sub.B7 and wherein the base of each of the plurality of second rectangular flat cutter blades is seated on one of the plurality of second base support surfaces; and

a plurality of clamp members each of which clamps one of said plurality of first rectangular flat cutter blades to one of the plurality of first base support surfaces, and clamps one of said plurality of second rectangular flat cutter blades to one of the plurality of second base support surfaces.

8. A helical rotary cutter as set forth in claim 7 wherein said rotor has a plurality of grooves that are identical to and angularly spaced from the at least one groove, about the rotor axis.

9. A helical rotary cutter as set forth in claim 7 wherein the plurality of first base support surfaces includes four first base support surfaces; and the plurality of second base support surfaces includes four second base support surfaces.

10. A helical rotary cutter as set forth in claim 9 wherein said rotor has a plurality of grooves that are identical to and angularly spaced from the at least one groove, about the rotor axis.

Sub.B8 11. A method of making a helical rotary cutter comprising machining a plurality of grooves in a steel cylinder that are angularly spaced from each other about a rotor axis;

machining a first groove wall, in each of said plurality of grooves, that is in a first wall plane extending

09766025-050704

Sub.B8 axially from a left cylinder end wall to a right cylinder end wall, extending outward away from the rotor axis, and wherein said first wall plane intersects the rotor axis;

machining a plurality of first base support surfaces, in each of said plurality of grooves, that are each in one of a plurality of first base support planes that are perpendicular to the first wall plane and with the plurality of first base support planes, intersecting each other and wherein a right end and a left end of each of the first base support surfaces are spaced equal distances from said rotor axis;

machining a second groove wall, in each of said plurality of grooves, that is in a second wall plane extending axially from the left cylinder end wall to the right cylinder end wall, extending outward away from the rotor axis, and wherein said second wall plane intersects the rotor axis;

machining a plurality of second base support surfaces in each of said plurality of grooves, that are each in one of a plurality of second base support planes that are perpendicular to the second wall plane and with the plurality of second base support planes intersecting each other and wherein a right end and a left end of each of the second base support surfaces are spaced equal distances from said rotor axis;

mounting a first rectangular flat cutter blade with a first cutter base that is parallel to a first cutter cutting edge on each of said plurality of first base support surfaces;

mounting a second rectangular flat cutter blade with

09765025-050701

*all cont*  
*Sub B8* SERIAL NO: 09/776,025

5

a second cutter base that is parallel to a second cutter  
cutting edge on each of said plurality of second base support  
surfaces; and

clamping the first rectangular flat cutter blades  
and the second rectangular flat cutter blades in the plurality  
of grooves.

---

09766025-050703